



# The CAIMan's (Aided & Intelligent Manufacturing) network and project proposals

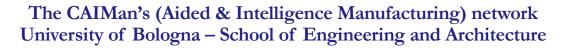
Giampaolo Campana Mattia Mele Michele Ciotti Barbara Cimatti Fabio Lenzi

Department of Industrial Engineering University of Bologna





- The CAIMan's Italian and International network
- Active funded and submitted projects
- Didactical Activities
- Recent published and submitted books, papers and patents
- Which collaborations?







- The CAIMan's Italian and International network
- ...
- ...
- ...
- ...



# The CAIMan's Italian growing network

**Studio Pedrini – Juno Design** 3D printing



Proterm S.p.A Heat treatment in Bologna



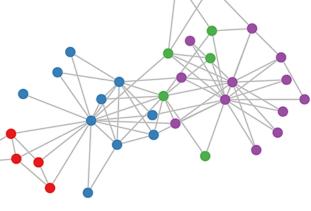






CERTEMA S.c.a.r.l.

Research centre in Grosseto



FAR S.r.l. HPDC technology



3D 4UMAN spin-off 3D printing for surgery

A number of NDAs have been signed to exchange reserved information with industrial partners





# The CAIMan's International growing network

## Osaka University, Japan

Academic agreement for researchers and students exchange



ULPGC (Universidad de Las Palmas de Gran Canaria), Spain

Erasmus agreement for researchers and students exchange



## TUB (Technische Universität Berlin) Fraunhofer Institute IPK Berlin

Members of the Scientific Committee of the GCSM (Global Conference on Sustainable Manufacturing)

Erasmus agreement for researchers and students exchange





16th Global Conference on Sustainable Manufacturing







- ...
- Active funded and submitted projects
- ...
- ...



# **Active funded projects**

#### EULA -GTEC Technology and Innovation

**Management Master, EU Funding.** A Project under the Erasmus +: Higher Education – International Capacity Building programme for master courses development.



SuperCraft, National funding with the Dept. of Architecture. Product customisations

Ognibene S.p.A, Private funding. Ductile Iron laser heat treatment for surface modification

Simex S.r.l, Private funding. Milling of brittle material (asphalt)

**Proterm S.p.A, Private funding.** Process modelling and applications of intelligent system

# Submitted projects under evaluation

New proposal: IT4Art – EU Creative Europe programme with the UniBo Dept. of Arts and EURECAT





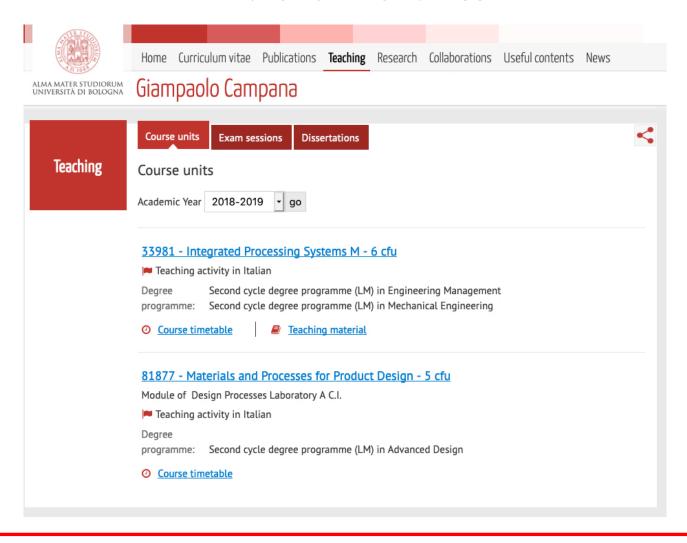


- ...
- ...
- Didactical Activities
- ...
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# The CAIMan's (Aided & Intelligence Manufacturing) network University of Bologna – School of Engineering and Architecture

#### Didactical activities









- ...
- ...
- ...
- Recent published and submitted books, papers and patents
- ...



#### Didactical books



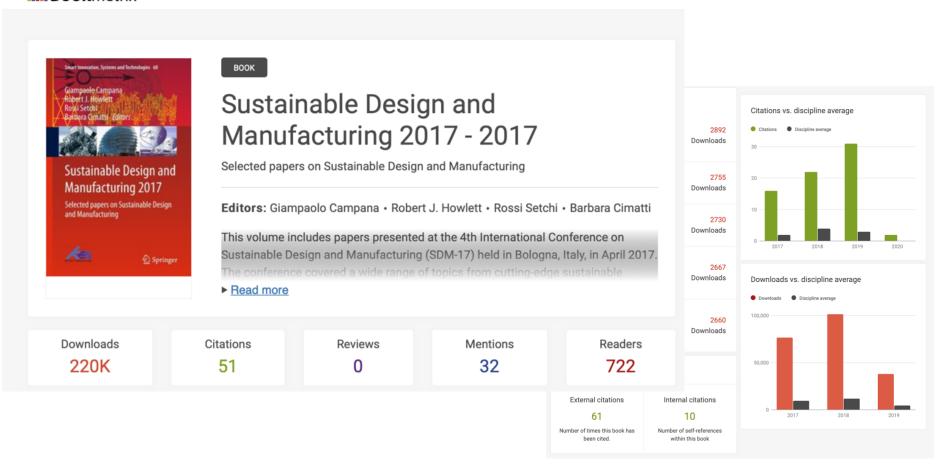






# Sustainable Design and Manufacturing by Springer

#### **Book**metrix





#### The CAIMan's (Aided & Intelligence Manufacturing) network University of Bologna - School of Engineering and Architecture

#### Italian Design Summer School is realized by





















#### ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA DIPARTIMENTO DI

# Italian Design SUMMER SCHOOL

**EDITION 14** 21 August - 7 September 2019

> Bologna - Bertinoro Italy

#### with the collaboration of





Moline canal, Bologna

Graphic design: Barbara Cimatti



PLIA - Folding Chair Giancarlo Piretti

# **IDSS** the Italian Design **Summer School**

CAIMAn is participating in the organisation and teaching of the IDSS.

The ITALIAN DESIGN SUMMER SCHOOL offers a unique opportunity to understand how the Italian tradition of Disegno is still living in today's industrial design project.





# Recent published and submitted papers and patents

#### **Recently published papers**

- M. Mele, G. Campana, *Prediction of Kansei engineering features for bottle design by a Knowledge Based System*, **2018**, doi 10.1007/s12008-018-0485-5
- G. Campana, M. Mele. *An application to Stereolithography of a feature recognition algorithm for manufacturability evaluation*, **2018**, doi 10.1007/s10845-018-1441-8

#### **Recently submitted papers**

- J. of Cleaner Production, About the Evaluation of optimal build Orientations to minimise the environmental Impact for Additive Manufacturing
- J. of MPT, An experimental Approach to Manufacturability Assessment of microfluidic Devices realised via Stereolithography
- J. of Composite Part A, Characterisation and stiffness modelling of Hemp-Fibre Reinforced epoxy resin Composites via moulding processes

#### **Patents**

- 2 new patents have been submitted in September 2018.
- The most relevant patent is the following: "Method of producing shrink sleeve labels and device". Publication Number WO2014125439 A1 (Application Number PCT/IB2014/058991), Publication date: 21 August 2014, Filing date: 14 February 2014, Priority date: 21 August 2014. Inventors: Maurizio Pedercini, Fiorenzo Parrinello, Andrea Farina, Martino Fisogni, Simone Albertazzi, Maurizio Fiorini, Giampaolo Campana, Nunziante Pagano, Antonella Iemmello. Applicant: Sacmi Verona S.p.A.



#### The CAIMan's (Aided & Intelligence Manufacturing) network University of Bologna – School of Engineering and Architecture

# CAIMAN

- ...
- ...
- ...
- Which collaborations?







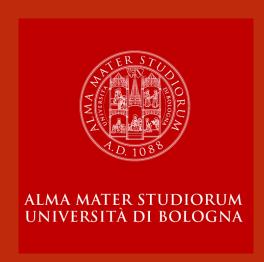
#### Which collaboration?

- \*\*\* Joint EU projects?
- \*\*\* Participation in international conferences?
- \*\*\* Joint research papers to be submitted in international journals
- We are actively participating in the International Conference on SDM (Sustainable Design and Manufacturing) 2019, Budapest, 4-6 September, 2019, as member of the International Program Committee.
- We are proposing a symposium in Bologna within the MECHANICS AND MATERIALS IN DESIGN int. conf. that will be held at the University of Bologna, 4-6 September, 2019

http://m2d2019.com/

http://m2d2019.com/wp-content/uploads/2018/11/9\_Symposium\_Campana\_Dassisti\_mida.pdf

- We are actively participating in the GCSM (Global Conference on Sustainable Manuifacturing). Shangai, 9-11 October 2019 (China) as members of the Scientific Committee.



# Giampaolo Campana

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